

Title: SEMICONDUCTOR MATERIAL HANDLING SYSTEM
Docket No SYS08197US0 Inventor(s): Anthony C. Bon
Serial No Known Attorney: Scott D. Sanford
Phone: (415) 362-3800
Filed: Herewith Express Mail No.: EL670726215US
Sheet 1 of 34

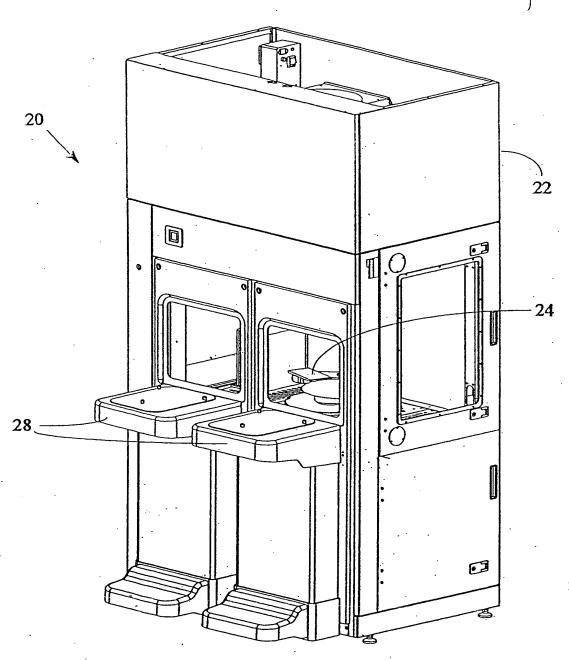
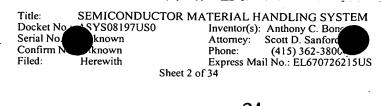
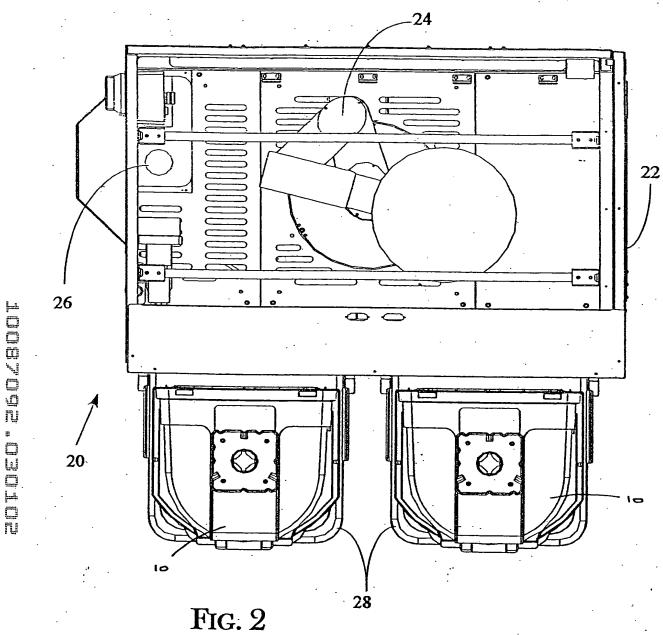


Fig. 1





SEMICONDUCTOR MATERIAL HANDLING SYSTEM

A 198197US0 Inventor(s): Anthony C. Bonora
wn Attorney: Scott D. Sanford
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Sheet 3 of 34 Title: SEMICO
Docket No.: 2081
Serial No.: Confirm No: Unknown
Filed: Herewith

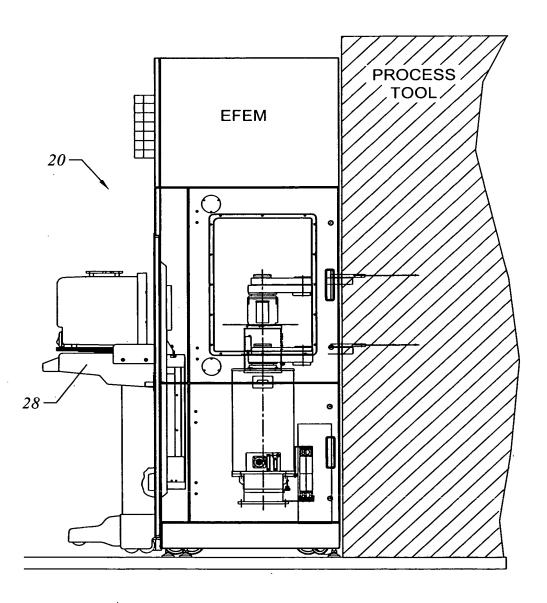


FIG. 3

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Docket No.: A 1981
Serial No.: wn
Confirm No: Unknown
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SEMICONDUCTOR MATERIAL HANDLING SYSTEM

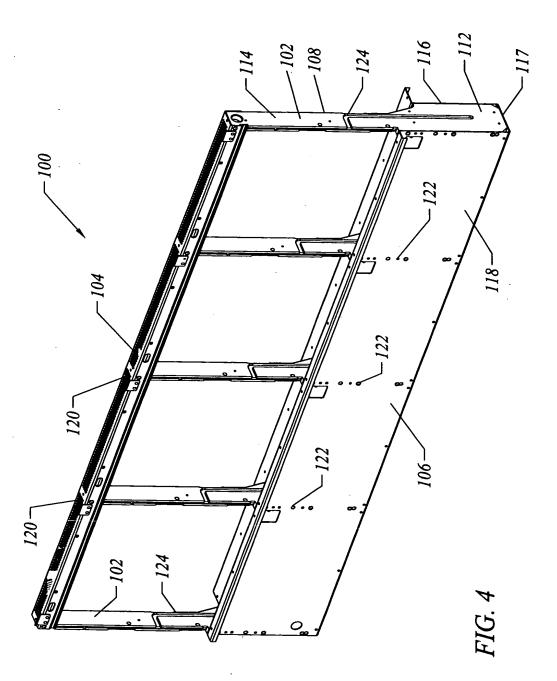
A 08197US0 Inventor(s): Anthony C. Bonora

Wn Attorney: Scott D. Sanford

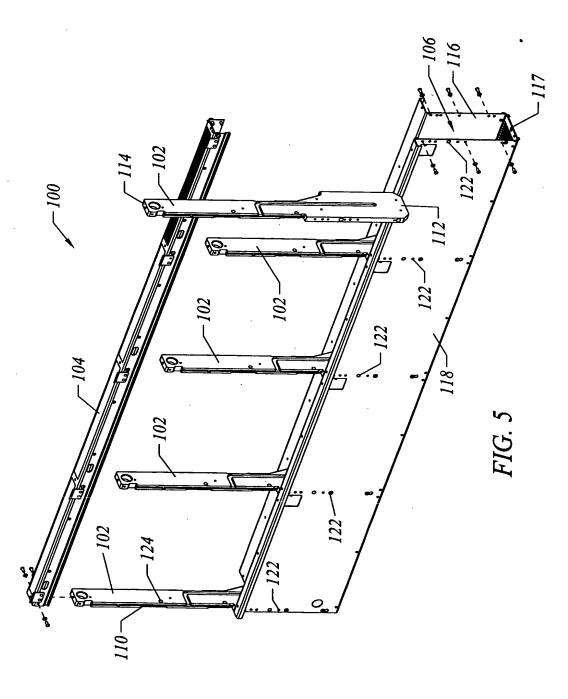
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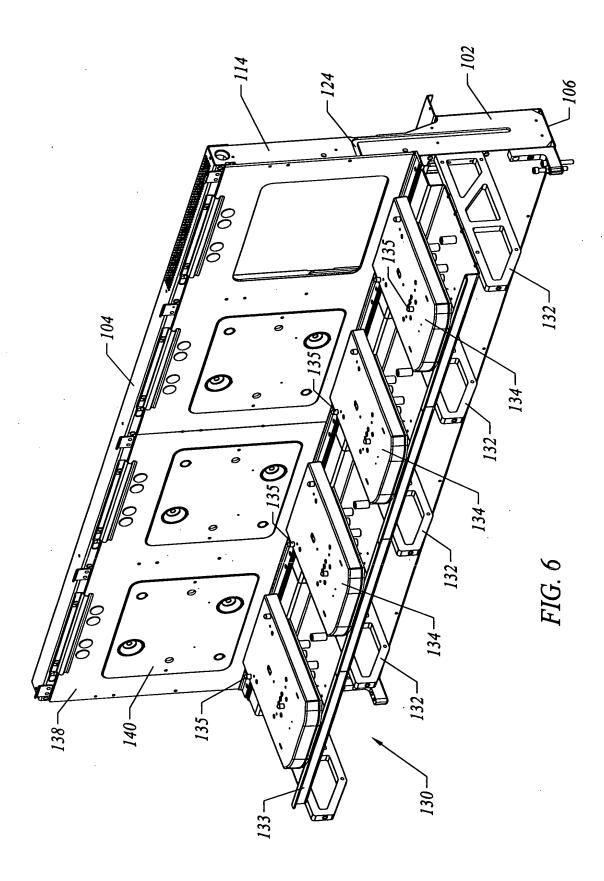
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Docket No.: AS 181
Serial No.: Unn
Confirm No: Unn. wn
Filed: Herewith



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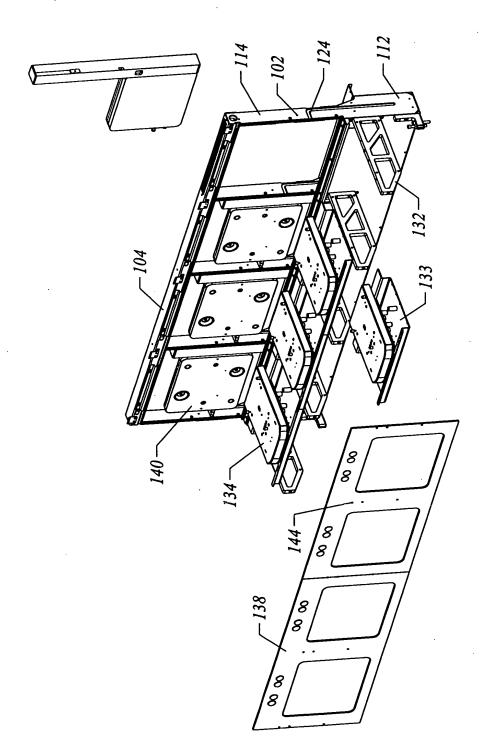
SEMICONDUCTOR MATERIAL HANDLING SYSTEM
Inventor(s): Anthony C. Bonora
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Herewith Express Mail No.: EL670726215US

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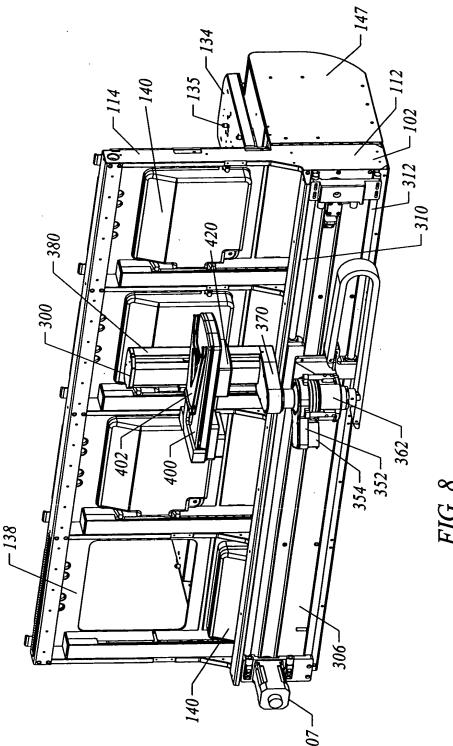
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SYSO8197US0 Inventor(s): Anthony C. Bo
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Sheet 9 of 34

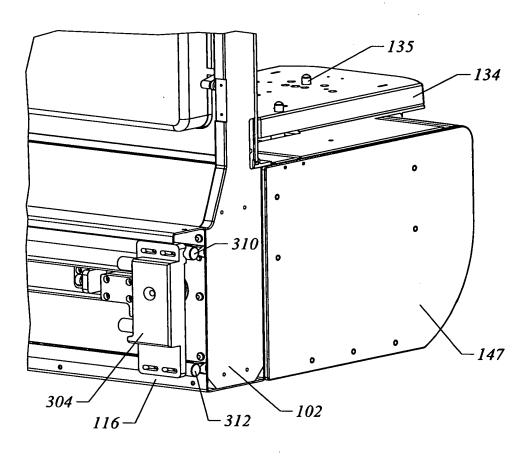
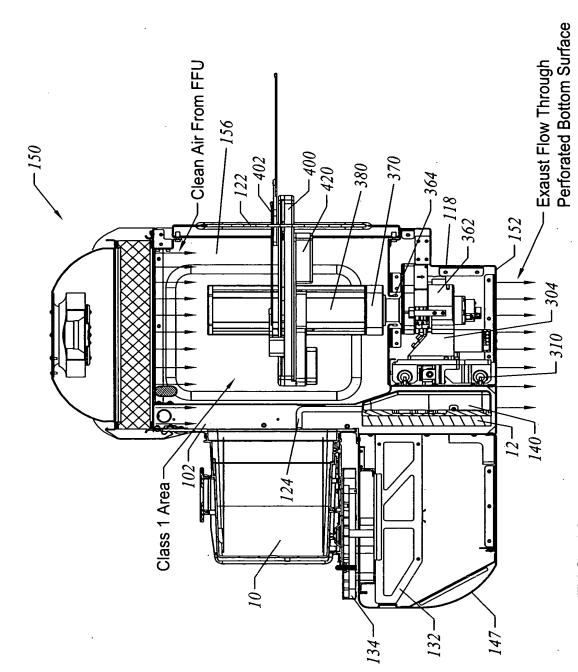


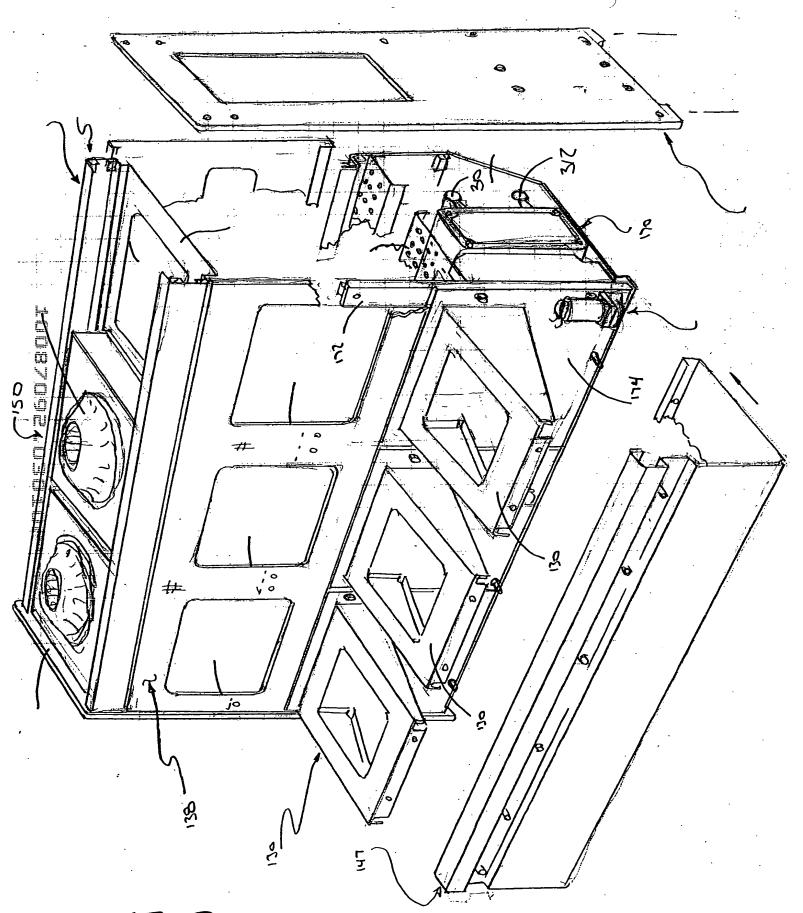
FIG. 9

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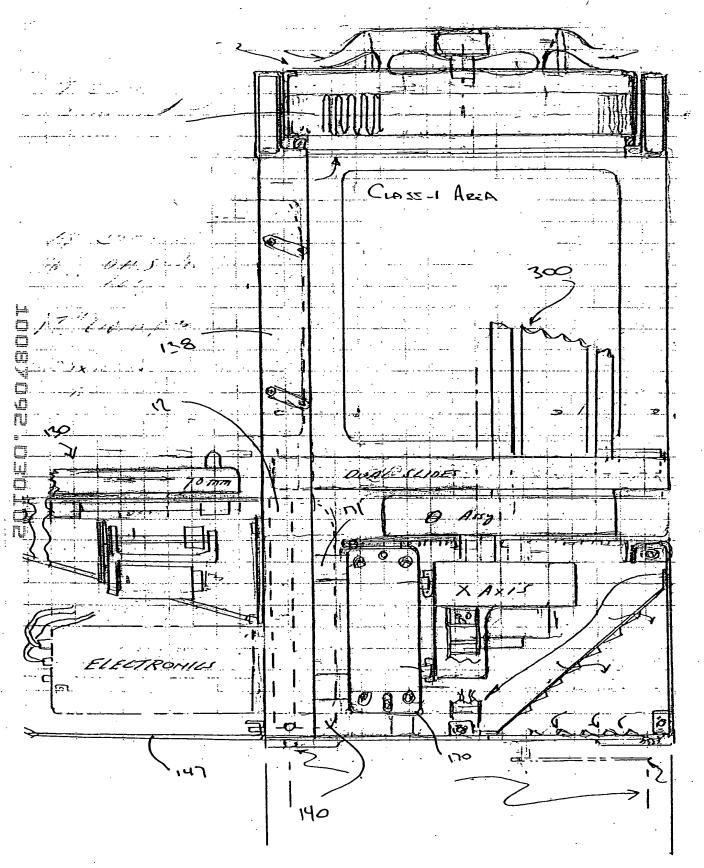
SEMICONDUCTOR MATERIAL HANDLING SYSTEM
ASYS08197US0 Inventor(s): Anthony C. Bo
Unknown Attorney: Scott D. Sanfo
Unknown Phone: (415) 362-38
Herewith Express Mail No.: EL670726215US
Sheet 11 of 34 Title: Docket No Serial N Confirm Filed:



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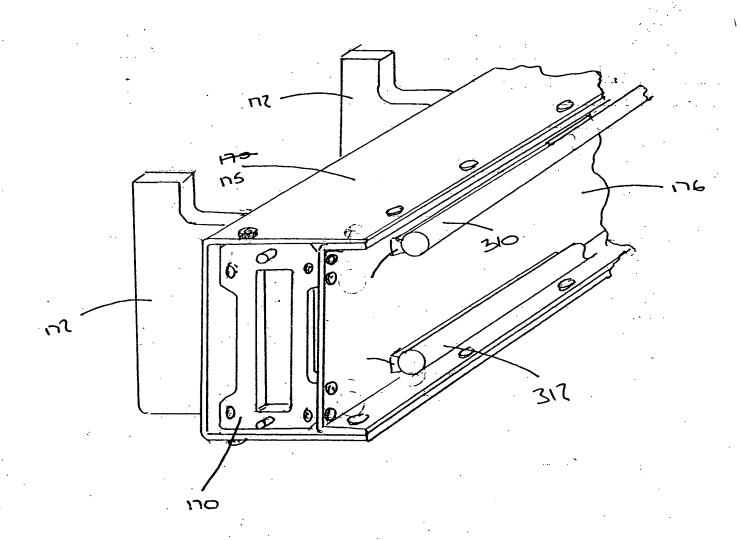
Title: SEMICONDUCTOR MATERIAL HANDLING SYSTEM
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Serial No. Iknown Attorney: Scott D. Sanfor
Confirm No. Iknown Phone: (415) 362-3800
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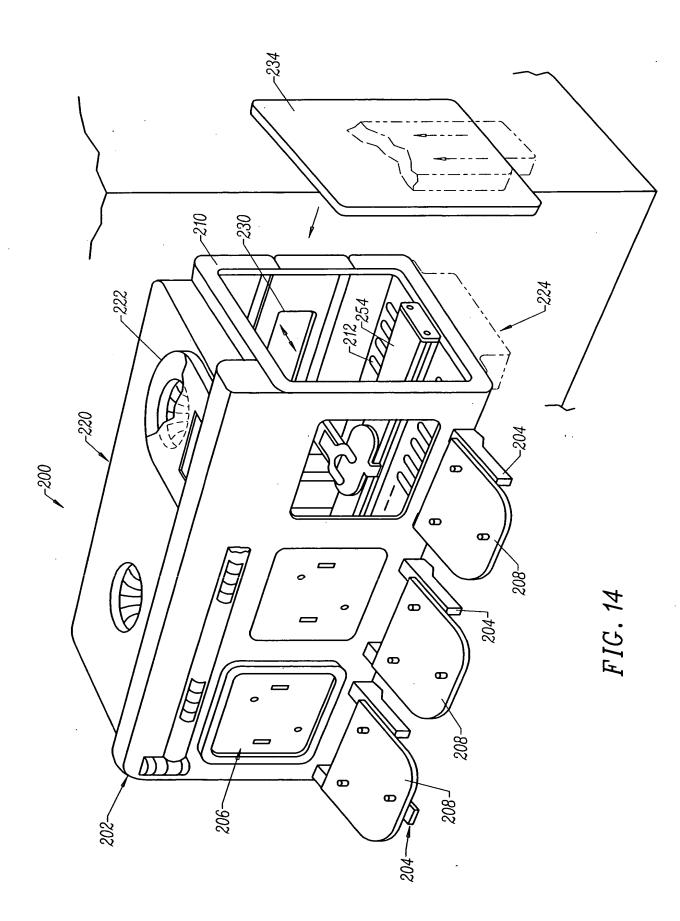
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SEMICONDUCTOR MATERIAL HANDLING SYSTEM
SYS08197US0 Inventor(s): Anthony C. Bo
hknown Attorney: Scott D. Sanfor
Onknown Phone: (415) 362-3800
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ASYS08197US0 Inventor(s): Anthony C. P
Unknown Attorney: Scott D. Sant
Unknown Phone: (415) 362-3800
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Sheet 15 of 34 Title: Docket Serial I Confirm Filed:

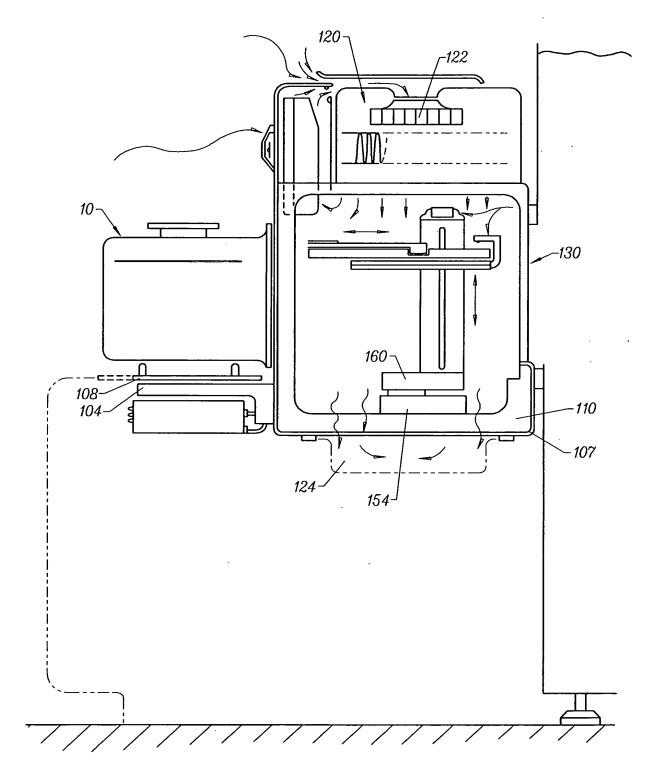
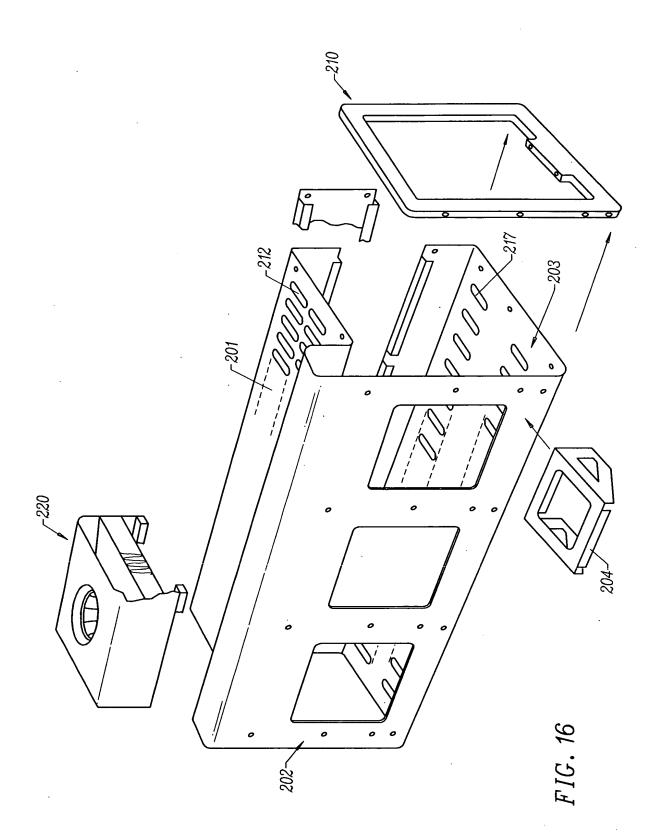


FIG. 15

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ASYS08197US0 Inventor(s): Anthony C. B
Unknown Attorney: Scott D. Sant
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SEMICONDUCTOR MATERIAL HANDLING SYSTEM
ASYS08197US0 Inventor(s): Anthony
Unknown Attorney: Scott D. S
Unknown Phone: (415) 362-3600
Herewith Express Mail No.: EL670726215US

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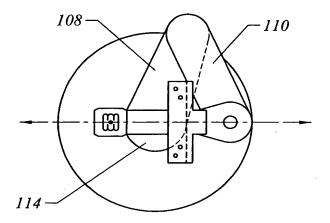


FIG. 17A (Prior Art)

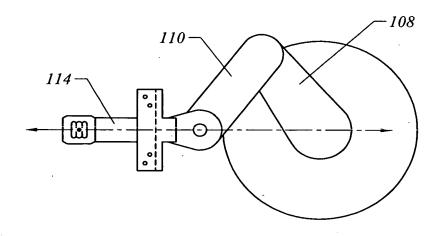
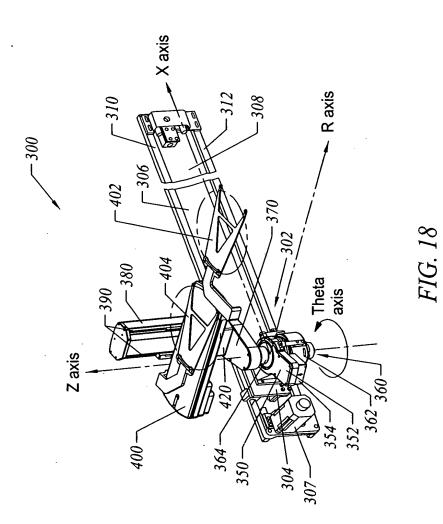


FIG. 17B (Prior Art)

Title: SEMICO Docket N YS0819 Serial No. nknown Confirm No: Unknown Filed:

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
1YS08197US0 Inventor(s): Anthony C. Bot
1Nnown Attorney: Scott D. Sanford
1Unknown Phone: (415) 362-3800
1Nnown Herewith Express Mail No.: EL670726215US
1Nnown Sheet 18 of 34



Title: Docket No. Serial No.: Confirm No: Filed:

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
(S08197US0 Inventor(s): Anthony C. Bono
nown Attorney: Scott D. Sanford
Phone: (415) 362-3800
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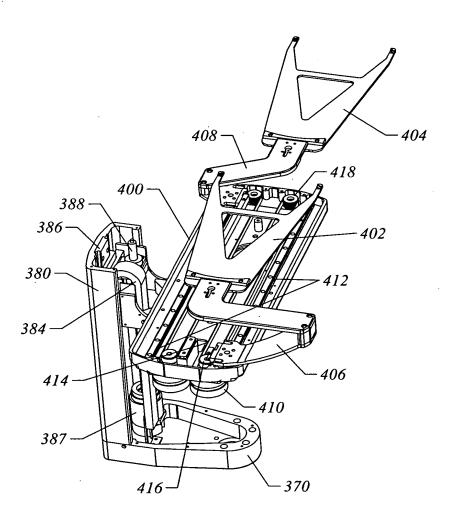


FIG. 19

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
(SYS08197US0 Inventor(s): Anthony C. Bonknown Attorney: Scott D. SanfolUnknown Phone: (415) 362-3800
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Sheet 20 of 34 Title: Docket N Serial N Confirm I Filed:

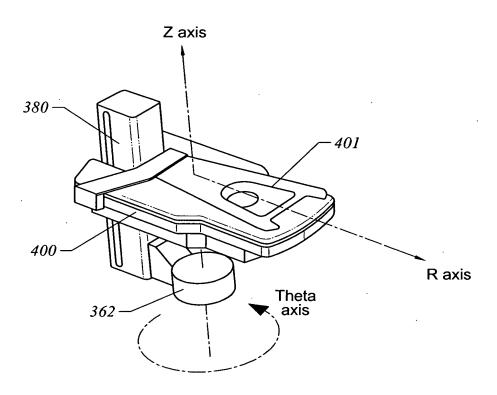


FIG. 20

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
(SYS08197US0 Inventor(s): Anthony C. Bonknown Attorney: Scott D. Sanfol
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Herewith Express Mail No.: EL670726215US
Sheet 21 of 34 Title: Docket N Serial No Confirm Filed:

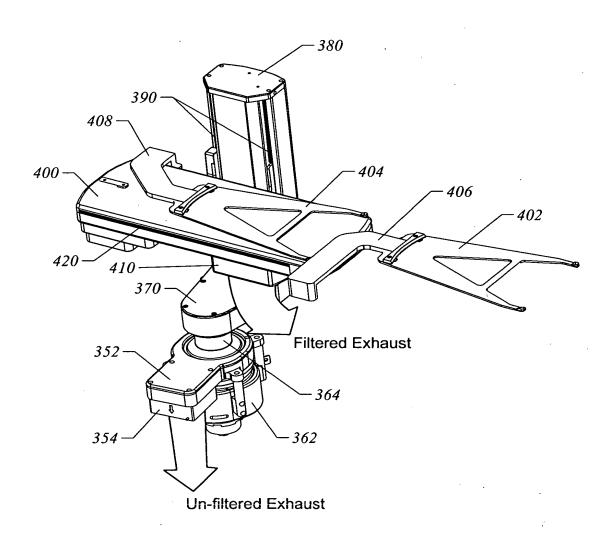


FIG. 21

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
(SYS08197US0 Inventor(s): Anthony C. Bonknown Attorney: Scott D. Sanfor
(Inknown Phone: (415) 362-3800
(Herewith Express Mail No.: EL670726215US)
(Sheet 22 of 34) Title: Docket N Serial No Confirm N Filed:

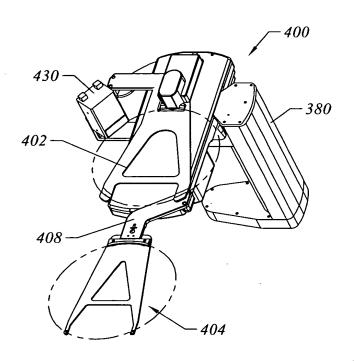
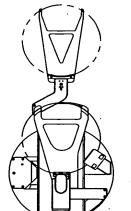
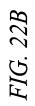


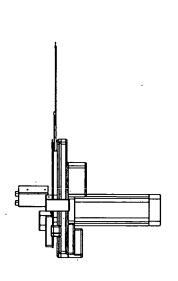
FIG. 22A

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hknown Attorney: Scott D. Sanfor
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Title: SEMICONDUCTOR MATERIAL HANDLING SYSTEM
Docket N ASYS08197US0 Inventor(s): Anthony C. Bo
Serial N Johnson Attorney: Scott D. Sanfo
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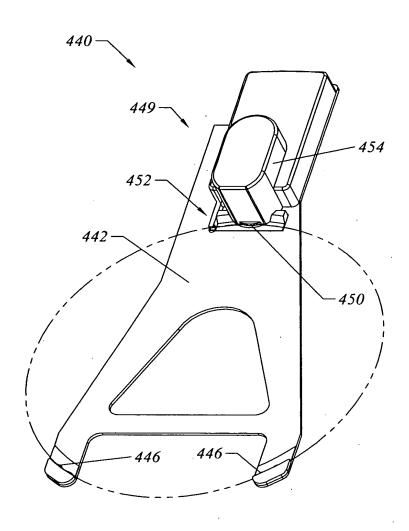


FIG. 23

SEMICONDUCTOR MATERIAL HANDLING SYSTEM
ASYS08197US0 Inventor(s): Anthony C.
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Unknown Phone: (415) 362-3660
Herewith Express Mail No.: EL670726215US
Sheet 25 of 34 Title: Docke Seria Confir Filed:

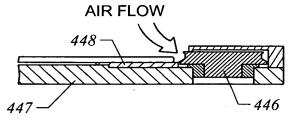


FIG. 24A

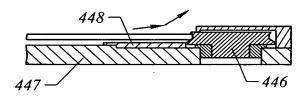


FIG. 24B

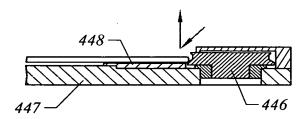
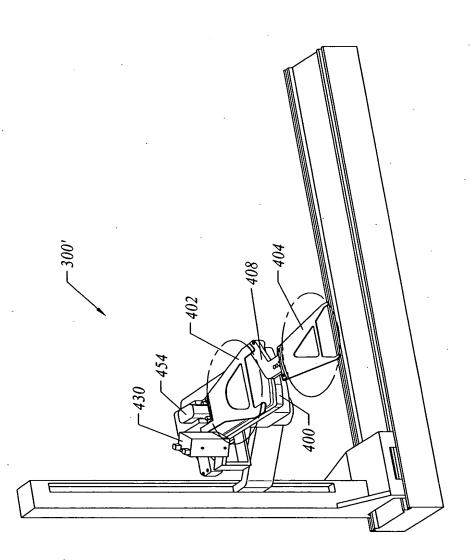


FIG. 24C

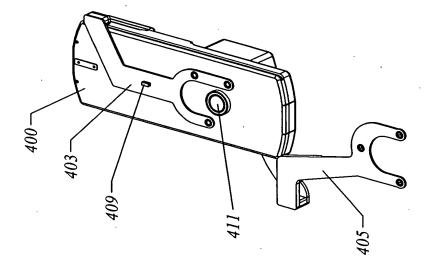
SEMICONDUCTOR MATERIAL HANDLING SYSTEM
ASYS08197US0 Inventor(s): Anthony C. B
Unknown Attorney: Scott D. Sanft
Unknown Phone: (415) 362-3806
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Sheet 26 of 34 Title: Docket N

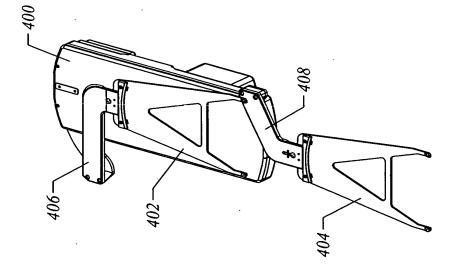
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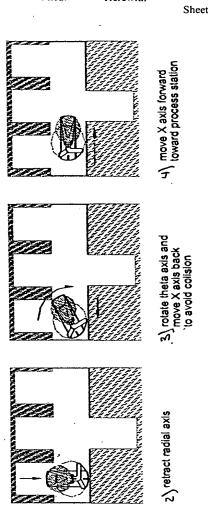
SEMICONDUCTOR MATERIAL HANDLING SYSTEM
SYS08197US0 Inventor(s): Anthony C. Bono
known Attorney: Scott D. Sanford
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Herewith Express Mail No.: EL670726215US
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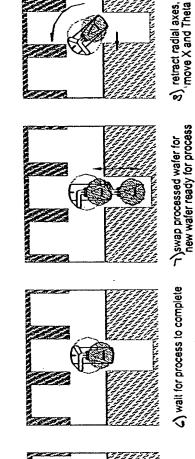
Title: SEMICONDUCTOR MATERIAL HANDLING SYSTEM
Docket No.: ASYS08197US0 Inventor(s): Anthony C. Bones
Serial No.: Inventor(s): Anthony C. Bones
Attorney: Scott D. Sanfo
Phone: (415) 362-38
Filed: Herewith Express Mail No.: EL670726215US
Sheet 28 of 34 MIN CLEARANCE 520mm MAX REACH 250mm Conventional Linear Silde Robot MIN LEARANCE MAX REACH 420mm 350mm Off-Center Silde-Body (50mm offset) FK.27B Process Tool EFEM

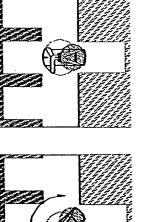
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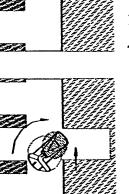


I) lift wafer at load port 1

Example motion sequence for rapid swap slide-body with off center rotation axis.







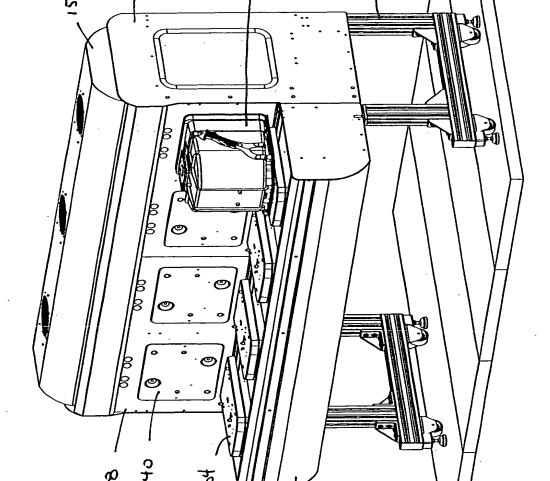






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Unknown Phone: (415) 362-38-90
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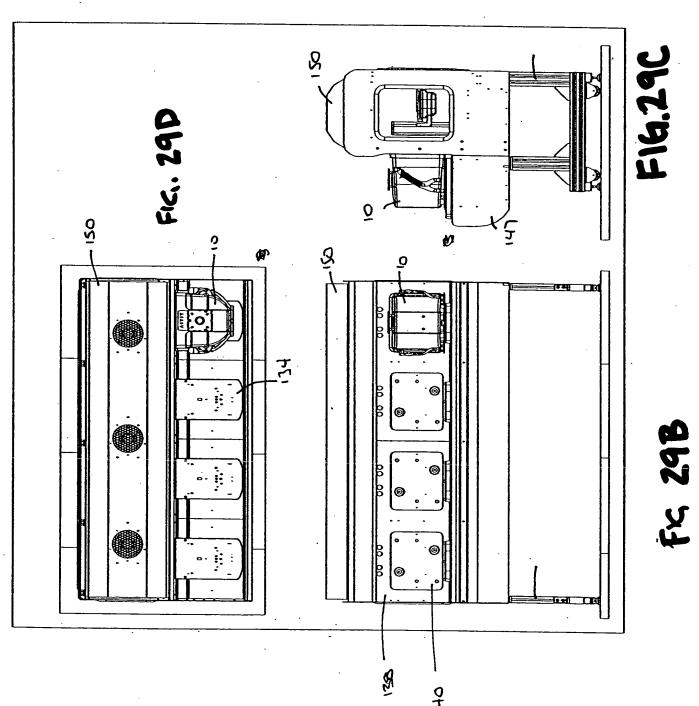


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F/G. 24A

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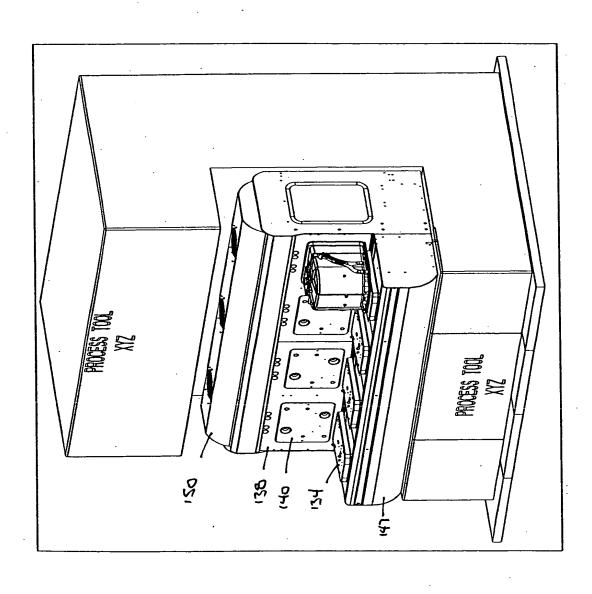
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Unknown Phone: (415) 362-38.
Herewith Express Mail No.: EL670726215US
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Unknown Attorney: Scott D. Sant
Unknown Phone: (415) 362-3800
Herewith Express Mail No.: EL670726215US

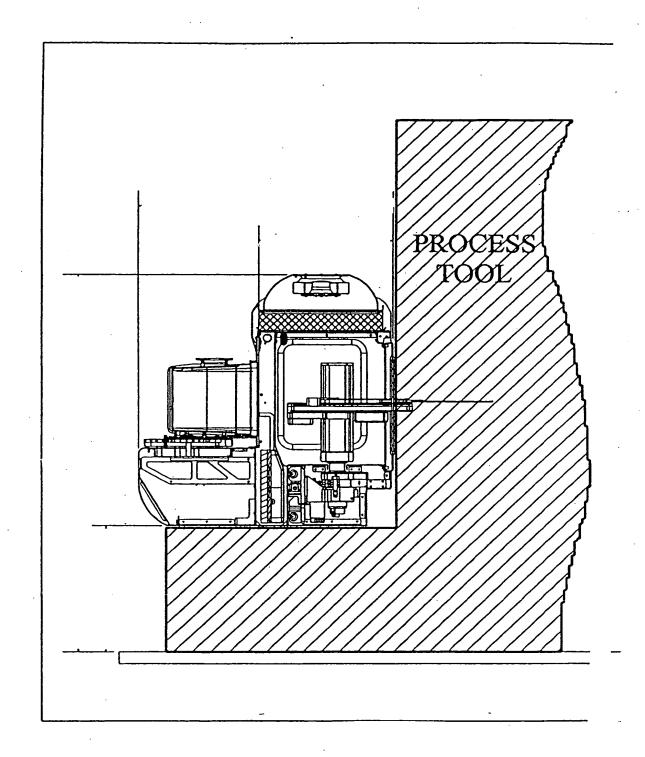
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ASYS08197US0 Inventor(s): Anthony C. Bonknown Attorney: Scott D. Sanfol Phone: (415) 362-3805
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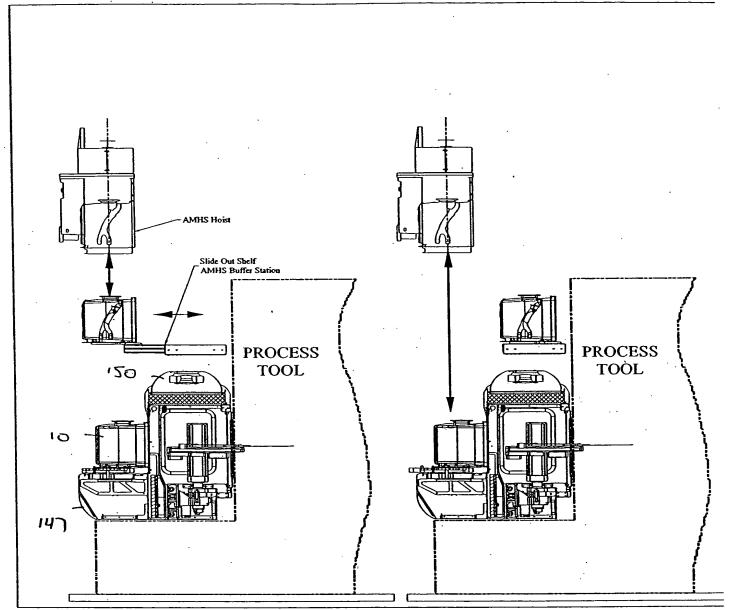


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